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ART UNIT	PAPER NUMBER
1784	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/581,056	FLEURY ET AL.	
	Examiner	Art Unit	
	LAUREN ROBINSON	1784	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 August 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-51* is/are pending in the application.

4a) Of the above claim(s) *16-31,33 and 43-51* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15,32 and 34-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 May 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11-15, 35, 38-41 and 42 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 11-15, 38-41 and 42 recites the limitation "functional feature" in claim 1. There is insufficient antecedent basis for this limitation in the claim as no "functional feature" is present in claim 1. While claim 1 does include the limitation "functional layers", it is unclear in claims 11-15, 38-41 and 42 whether "functional feature" means the functional layers themselves, whether they are part of the functional layers or whether it is a completely different feature sequence in the stack.

For example, the claims do not recite where the feature (s) are in relation to all other layers in the stack. Additionally, some of the claims imply that only one feature is necessary but if the features are related to the functional layers, the claims are unclear as the stack would require three features and not one. Also, some of the claims recite "each feature", however, without knowing what the feature is, how they are related to the stack, etc., there is no way of knowing what "each feature" limits.

For examination, the claims are interpreted in the manner that if the sequence structure in claims 11-15, 38-41 and 42 describing the feature is taught by the prior art, the claims are met.

Claim 35 is rejected as it recites a broad limitation together with a narrow limitation. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 35 recites the broad recitation three silver layers having a certain thickness, and the claim also recites four layers having a certain thickness which is the narrower statement of the range/limitation.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for

patent in the United States.

1. Claims 1-8, 11-12, 32, 34-35, 38 and 39 are rejected under 35 U.S.C. 102(b) as anticipated by Woodruff et al. (US 6,353,501).

Regarding claim 1: Woodruff teaches a transparent substrate comprising glass (Col. 2, lines 25-26) and provided with a thin film stack including a plurality of functional layers. The stack comprises at least three silver functional layers (Col. 6, lines 40-65) and has a resistance of less than 1.5 ohms per square (Col. 9, lines 43).

Woodruff does not explicitly teach the transparent substrate being transformable via a heat treatment at 500 degrees C. However, the limitation does not make it necessary for the prior art to explicitly teach a transformation but instead, the prior art only has to be capable of transforming in the claimed manner. As Woodruff's article appears to meet applicants' structural limitations of claim 1, one having ordinary skill would expect the article to have the same capabilities including being transformable at 500 degrees C.

Regarding claims 2-3 and 4: Woodruff does not explicitly disclose the light transmission or the claimed transmission and resistance combination. However, as Woodruff teaches applicants' invention of claim 1, one having ordinary skill would expect the same properties to occur absent an evidentiary showing to the contrary.

Regarding claims 6-7 and 35: The silver layers each have a thickness of 10 to 15nm (total of 30-45nm. For example, a first layer of 12nm, a second layer of 13nm and a third layer of 12nm (total 37nm) (Col 7, lines 1-6). Each silver functional layer has a titanium

superjacent layer thereon (Col. 7, lines 30-40 and Col. 8, lines 22-32) meeting applicants' claimed identical functional feature for each silver layer.

Regarding claims 8, 11-12, 38 and 39: At least one of the functional layers (51 in Figure 3) is located between a lower dielectric and an upper dielectric (50 and 54 in Figure 3) (Col. 7-9).

An upper absorbent titanium metal layer (52 in Figure 3) is located between one of the silver layers (51 in Figure 3) and an upper dielectric (54 in Figure 3)(Col. 7-9) meeting applicants' functional feature of claims 11 and 38. A lower absorbent titanium metal layer (52 in Figure 3) is between at least one lower dielectric (50 in Figure 3) and a silver layer (55 in Figure 3) meeting the functional feature of claims 12 and 39.

Regarding claim 32: Woodruff teaches a glazing assembly (abstract, Figures) for electromagnetic shielding (EMI) (Col. 4, lines 10-14 and 56-65) and the glazing assembly comprises the transparent glass substrate with the stack discussed above (Figures).

Specifically, the stack comprises at least three silver functional layers and has a resistance of less than 1.5 ohms per square. Woodruff does not explicitly disclose the substrate being transformable but the language of the claim does not make it necessary but instead, only requires the capability to be present. In the instant case, as Woodruff's article appears to meet applicants' structural limitations of claim 32, one having ordinary skill would expect the article to have the same capabilities including being transformable at 500 degrees C.

Regarding claim 34: The glazing assembly has at least one other substrate (Figure 3). Woodruff does not explicitly recite the glazing assembly's selectivity, however, Woodruff appears to teach the same structure of claims 32 and 34. Therefore, one having ordinary skill would have expected the same properties to occur absent an evidentiary showing to the contrary.

2. Claims 1, 3-9, 32 and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Tachibana et al. (WO 00/40402).

Regarding claim 1: Using the English machine translation, Tachibana et al. teach a transparent substrate comprising glass (0002) and provided with a thin-film stack having a plurality of functional layers (0059-0066). The stack comprises at least three silver-based functional layers and has a resistance of less than 1.5 ohms per square (0060, Table 9).

Tachibana does not explicitly teach the transparent substrate being transformable via a heat treatment at 500 degrees C. However, the limitation does not make it necessary for the prior art to explicitly teach a transformation but instead, the prior art only has to be capable of transforming in the claimed manner. As Tachibana's article appears to meet applicants' structural limitations of claim 1, one having ordinary skill would expect the article to have the same capabilities including being transformable at 500 degrees C.

Regarding claims 3-4 and 5: The transparent substrate has a transmission of greater than 40% (Table 9), a resistance less than 1.1 ohms per square (Table 9) and the stack comprises four silver layers (Table 9).

Regarding claims 6 and 7: The total thickness of the silver layers is greater than 25 nm (Table 9). Each silver functional layer has an identical superjacent or subjacent layer thereon (Table 9) meeting applicants' claimed identical functional feature for each silver layer.

Regarding claims 8-9 and 37: At least one of the functional layers is located between a lower dielectric and an upper dielectric (Table 9). At least one functional layer has an upper layer of Si3N4 (Table 9). Each functional layer has an upper Si3N4 layer (Table 9).

Regarding claim 32: Tachibana teaches glazing assemblies (Figures 22-28) for electromagnetic shielding (EMI) (0075) and the glazing assemblies can comprise the transparent glass substrate with the stack discussed above (Figures).

Specifically, the stack comprises at least three silver functional layers and has a resistance of less than 1.5 ohms per square. Tachibana does not explicitly disclose the substrate being transformable but the language of the claim does not make it necessary but instead, only requires the capability to be present. In the instant case, as Tachibana's article appears to meet applicants' structural limitations of claim 32, one having ordinary skill would expect the article to have the same capabilities including being transformable at 500 degrees C.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as obvious over Woodruff et al. (US 6,353,501) as applied to claim 1 above.

Regarding claim 4: Woodruff teaches applicants' invention of claim 1 wherein the resistance is 1.5 ohms per square or less.

As Woodruff's article appears to be the same as applicants' claim 1, Woodruff's article would be expected to have the same transmission properties. Also, Woodruff teaching the resistance being less than 1.5 ohms per square overlaps applicants' claimed range providing a prima facie case of obviousness (MPEP 2144.05). Specifically, Woodruff teaches that the resistance changes emission levels (Col. 9, lines 38-40). Therefore, one having ordinary would have found it obvious at the time of invention to adjust the resistance to various values below 1.5 to obtain desired emission.

Regarding claim 5: Woodruff fails to teach "four" silver layers. However, Woodruff teaches at least two silver layers (Col. 2, lines 66-67) which overlaps applicants' four layers providing a prima facie case of obviousness. Specifically, it is well known in the art that additional silver IR reflecting sequences will change the optical properties. Therefore, one having ordinary skill at the time of invention would have found it obvious to adjust the amount of layers to amounts greater than two to obtain desired optical properties.

4. Claims 2, 10, 13-15, 34-36, 40-41 and 42 are rejected under 35 U.S.C. 103(a) as being obvious over Tachibana et al. (WO 00/40402) as applied to claim 1 above.

Tachibana discloses applicants' invention of claim 1 with transmission greater than 40%. However Tachibana fails to disclose the stack having greater than 70% transmission.

Regarding claim 2: Tachibana discloses that their transparent substrates provided with stacks comprising at least three silver based functional layers (0061) and a resistance between 0.5 and 3.5 ohms per square (0072) can be made to have a transmission of at least 40% (0072).

Although no specific example is presented, Tachibana is suggesting a structure having transmission values overlapping applicants' providing a prima facie case of obviousness. Specifically, Tachibana's laminate is meant for window glass for automobiles, buildings and/or plasma displays and one having ordinary skill knows that higher transmission is beneficial for these products. For example, increasing transmission as close as possible to 100%, will allow for greater visibility to a driver in an automobile allowing for safety. Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use transmission values much greater than 40% to obtain desired visibility/safety.

Regarding claim 10: Tachibana fails to teach the substrate with the stack of claim 1 having a layer of Si3N4, AlN, or mixture thereof being directly on the substrate.

However, Tachibana teaches that their stacks having at least three silver based functional layers (0061) and a resistance between 0.5 and 3.5 ohms per square (0072)

can include a Si3N4 layer directly on the substrate surface (Table 4). This suggests that a stack having the properties and features of claim 1 can be made with a Si3N4 layer directly on the substrate. It would have been obvious to one having ordinary skill in the art at the time of invention to include a stack of claim 10 having a Si3N4 layer directly on the substrate in order to obtain a suitable coating.

Regarding claims 13-15 and 36: Tachibana teaches that the stack of claim 1 comprising Si3N4/Ag/Si3N4/TiO2/Si3N4/Ag/Si3N4/TiO2/Si3N4/Ag/Si3N4 (Table 9) but Tachibana fails to include ZnO being therein.

However, Tachibana teaches their stacks can have at least three silver based functional layers (0061), a resistance between 0.5 and 3.5 ohms per square (0072) and ZnO can replace any one of the Si3N4 layers therein (0062-0064) . This suggests that Tachibana's laminate having the at least three and even four silver layers and resistance can have any one of the Si3N4 layers suitable replaced with ZnO such as **ZnO/Ag**/ZnO/TiO2/ZnO/Ag/ZnO/TiO2/ZnO/Ag/ZnO/TiO2/**ZnO**/Ag/**Si3N4**. As the stack will be the same as claimed, the properties of claim 1 would still be expected to occur. Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to include a stack of ZnO/Ag/ZnO/TiO2/ZnO/Ag/ZnO/TiO2 /ZnO/Ag/ZnO/TiO2/ZnO/Ag/Si3N4 along with the resistance, etc. in order to obtain a suitable coating. The laminate having this sequence meets applicants' "functional feature" and as the structure is as claimed, the transformability properties is still expected to occur.

Tachibana does not include the specific thicknesses of these layers as in claims 14 and 15. However, Tachibana teaches that it is preferable that the silver layers have a thickness of 8-30nm (0059) and the ZnO and Si3N4 layers can have a thickness of 0.1 to 30nm (0062-0069). This provides for the functional feature sequence above to having thickness of ZnO, Ag and Si3N4 overlapping applicants and it would have been obvious to one having ordinary skill in the art at the time of invention to choose thickness within Tachibana's ranges to obtain suitable optical and physical properties. Again, as the structure meets applicants' claim, the properties of claim 1 would still be expected to occur.

Tachibana does not teach an example of a stack having the features of claim 1 with each silver being between an upper and lower ZnO layer as in claim 36. However, Tachibana's above teaching allows for a stack of at least three silver layers with the resistance to have "each" Si3N4 layer replaced with ZnO. For example, Table 9 is suitably replaced with ZnO/Ag/ZnO/TiO2/ZnO/Ag/ZnO/TiO2/ZnO /Ag/ZnO/TiO2/ ZnO/Ag/ZnO. Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to include a stack of ZnO/Ag/ZnO/TiO2/ZnO/Ag/ZnO/TiO2 /ZnO/ Ag/ZnO/TiO2/ZnO/Ag/ZnO along with the resistance, etc. in order to obtain a suitable coating. As the structure is the same as claimed, the properties of claim 1 are expected to flow. Additionally, claim 36 reciting that the ZnO layers are "dopeable" does not require aluminum to be present but only instead, only requires the layers being capable of doping with aluminum. As Tachibana teaches ZnO as in the claim, one

having ordinary skill would expect it to have the same capabilities of being dopeable with aluminum.

Regarding claim 34: The glazing assembly can have at least one other substrate (Figures 22-28, Table 9). Tachibana does not explicitly recite the glazing assembly's selectivity, however, Woodruff appears to teach the same structure of claims 32 and 34. Therefore, one having ordinary skill would have expected the same properties to occur absent an evidentiary showing to the contrary.

Regarding claim 35: Tachibana does not teach an example with a stack having the features and properties of claim 1 having a total silver thickness in the range of claim 35.

However, Tachibana teaches that the their stacks having the at least three silver based functional layers (0061) and a resistance between 0.5 and 3.5 ohms per square (0072) can have a total silver thickness of up to 120nm (0060). This provides for a stack having at least three silver layers having a total thickness and resistance overlapping and it would have been obvious to one having ordinary skill in the art at the time of invention to choose thickness and resistance values within Tachibana's ranges to obtain a suitable stack. Again, as the structure meets applicants' claim, the transformability, etc. properties of claim 1 would still be expected to occur.

5. Claims 40-41 and 42 are rejected under 35 U.S.C. 103(a) as obvious over Tachibana et al. (WO 00/40402) as applied to claim 1, in view of Woodruff et al. (US 6,353,501)

Tachibana teaches applicants' claim 1.

Regarding claim 40: Tachibana does not teach an example of the stack from claim 1 having a feature comprising ZnO/Ag/Ti/ZnO/Si3N4. However, as above, Tachibana suggests that their at least three silver layer stack having the resistance of claim 1 can be made to comprise **ZnO/Ag**/ZnO/TiO2/ZnO/Ag/ZnO/TiO2/ZnO/Ag /ZnO/TiO2/**ZnO**/Ag/**Si3N4** to obtain a suitable stack. Therefore, it would have been obvious to one having ordinary skill at the time of invention to include a stack of at least three silver layers having the resistance of claim 1 and comprising **ZnO/Ag**/ZnO/TiO2/ZnO/Ag/ZnO/TiO2/ZnO/Ag/ZnO/TiO2/**ZnO**/Ag/**Si3N4**.

Tachibana does not teach the sequence having a titanium metal therein. However, Woodruff teaches a laminate having at least two alternated by dielectrics. Woodruff teaches that it is preferable that a sacrificial titanium metal layer is placed directly on each silver and in between silver and dielectrics including TiO2, in order to protect the silver from oxidation (Col. 7-8).

Tachibana and Woodruff disclose analogous inventions related to silver stacks comprising at silver layers alternated with TiO2 dielectrics. As Woodruff teaches the benefits of applying titanium metal of 0.5 to 5nm thick directly to the silver layers, it would have been obvious to one having ordinary skill in the art at the time of invention to modify Tachibana to include a Ti layer as in Woodruff directly on each silver in order to protect silver from oxidation. This provides **ZnO/Ag/**Ti/ZnO/TiO2/ZnO/Ag/Ti/ZnO/ TiO2/ZnO /Ag/**T**i/ZnO/TiO2/**ZnO**/Ag/Ti/**Si3N4** meeting applicants' functional feature.

As this structure meets applicants' claims 1 and 40, one having ordinary skill would expect the properties of resistance and transformability from claim 1 to still occur.

Regarding claims 41 and 42: A discussed, Tachibana discloses that each ZnO and Si3N4 layer in the four silver layer stack can have a thickness of 0.1-30nm, the silver layers have a thickness of 8-30nm and as the Ti layer is the one of Woodruff, it has a thickness of 0.5-5nm. All these thicknesses overlap applicants' and it would have been obvious to one having ordinary skill in the art at the time of invention to choose thicknesses within these ranges to obtain a suitable coating. As this structure meets applicants' claim, one having ordinary skill would still expect the properties of claim 1 to occur with these thicknesses.

Response to Arguments

Applicant's arguments filed August 18, 2010 have been fully considered but they are not persuasive.

Applicant argues that Woodruff's article does not meet applicants' structural limitations of claim 1 and therefore, it would not be expected to have the same property of being transformable at 500 degrees C Specifically, applicants argue that Woodruff teaches much thicker layers than applicant and does not teach applicants' zinc oxide dopeable with aluminum. Therefore, Woodruff would not be expected to inherently have the same transformable property and the examiner has not provided any fact or reasoning to support this conclusion.

This is not persuasive because thickness and materials are not being claimed in combination with the transformable property. Additionally, it is not clear that the materials and thicknesses taught by Woodruff would not be capable of transforming at

temperatures above 500 degrees. The structure recited in claim 1 that appears to be critical to the property of transformation is that at least three silver layers are present and this structure is clearly taught by Woodruff. As Woodruff appears to teach the critical structure that impacts the property claimed, one having ordinary skill would reasonably expect the same properties and capabilities to be present. Therefore, the examiner has provided reasoning and fact as to why the property would be expected. Also, applicants' have not shown with evidence or substantive argument that Woodruff would not be capable of transformation.

Additionally, while Woodruff teaches some thicker layers and other oxide materials, Woodruff clearly teaches thinner dielectric layers of 5-40nm present on the inside and outside of silver (inner and outer) and these layers can be zinc oxide (Col. 9). While Woodruff may not disclose the zinc oxide doped with aluminum, the zinc oxide recited in the claim is "dopeable with aluminum" which makes it necessary for zinc oxide to be capable of aluminum doping. Since Woodruff teaches zinc oxide, it would be capable of doping.

Applicants argue that Tachibana fails to disclose a stack having at least three silver layers, a resistance of less than 1.5 ohms and a substrate transformable at 500 degrees C. Specifically, applicants argue that Tachibana fails to disclose a stack having at least three silver layers, and a resistance of less than 1.5 ohms because Tachibana's Table 9 includes four silver layers and not three. This is not persuasive because claim 1 recites a stack having "at least three" silver layers with a resistance of less than 1.5 and this allows for a stack having four silver layers. Therefore, Tachibana's stack noted

in Table 9 meets the at least three silver limitation. Additionally, the Table 9 stack has a resistance of less than 1.5 thereby meeting the resistance limitation.

Applicants argue that Table 7 and paragraph 0061 of Tachibana which describes a three silver stack has a resistance of 1.5 and not less than 1.5. This is not persuasive because Table 7 or paragraph 0061 was not used to meet the limitations of claim 1. Instead, Table 9 was used to meet the limitations of a stack having at least three silver layers and a resistance less than 1.5 ohms and for the reasons previously discussed, the rejection stands.

Applicants argue that Tachibana's structure is not the same as in claim 1 and therefore, would not be capable of being transformable at 500 degrees C. Specifically, applicants argue that Tachibana only uses titanium oxide as the dielectric layer. In contrast, applicants' disclose a non-limiting embodiment which includes a titanium metal layer and a ZnO dielectric layer Therefore, Tachibana's structure is not the same as applicants' and would not be capable of transforming and the examiner has not providing any reasoning or facts to assert this.

This is not persuasive because these features are not being claimed in claim 1 in combination with the transformable property. The structure recited in claim 1 that appears to be critical to the property of transformation is the presence of at least three silver layers. As Tachibana teaches the critical structure of at least three silver layers, one having ordinary skill would reasonably expect the same properties and capabilities to be present. Therefore, the examiner did provide reasoning and fact as to why the

property would be expected. Also, applicants' have not shown with evidence that Tachibana would not be capable of transformation.

Additionally, Tachibana teaches dielectrics of ZnO which is the dielectric disclosed by applicants'. However, the examiner notes that applicants' admit that having a titanium metal layer and a dielectric of ZnO is a non-limited embodiment which clearly indicates that the invention does not necessarily need these materials in order to obtain the property of transformation. Therefore, as Tachibana teaches the structure that appears to provide the property of transformation capability, Tachibana is considered to be capable of transforming.

Applicants argue that it would not have been obvious to modify Woodruff to provide four silver layers as Woodruff does not teach four silver layers and discourages using additional or thicker layers since it lowers visible transmission. This is not persuasive because while the examiner agrees that Woodruff does not explicitly teach four silver layers, Woodruff does teach that "at least two" silver layers can be used which clearly contemplates allowing for more silver layers. Additionally, while Woodruff teaches smaller quantities of silver, Woodruff only prefers smaller quantities such as three layers for visible transmittance. Therefore, Woodruff does not teach away or discourage the use of four.

Applicants argue that Tachibana does not teach a transmittance greater than or equal to 70% since the reference teaches that with an increase in lamination, transmittance decreases and their examples show that an increase to three silver layers, the transmittance is below 70%. For example, limited to 64%.

This is not persuasive because Tachibana is not considered to teach away from using at least three silver layers with a transmittance of greater than or equal to 70% because Tachibana clearly teaches that a stack of three or more silver layers having a transmittance of greater than 40% can be obtained. This provides a clear teaching that any transmittance of greater than 40% with three silver layers is within their inventive concept.

Although Tachibana does teach that with increased lamination, transmittance has a tendency to decrease, this is not considered to disclose that a three silver layer stack cannot obtain 70 or greater transmission.

Additionally, while applicants' argue that Tachibana's examples show stacks comprising three silver layers have less than 70% transmission and even a transmission of only 64%, this is not persuasive because the invention of Tachibana is not limited to their examples. Also, Tachibana's three silver layers are not limited to 64% because one of their examples clearly teaches at least 67% is desired which provides a further indication that 70% transmission with three silver layers is within the scope of their disclosure (Table 7, 0149).

Additionally, Tachibana teaches that other features of the stack also affect transmission (0149, 0201, examples). For example, materials used, thickness, etc. (0149, 0201, examples). Therefore, there is nothing in Tachibana that appears to preclude a transmission of at least 70%.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAUREN ROBINSON whose telephone number is (571)270-3474. The examiner can normally be reached on Monday to Thursday 6am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on 571-272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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